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SOLID WASTE MANAGEMENT: A GLOSSARY OF TERMS

If you want to help protect the environment by reducing waste and to become more knowledgeable about waste issues, you will want to understand the language of waste management. Some of the words may at first appear to have no connection with solid waste, they are included because they relate to materials or processes which do play a role in waste issues. Other sources of information will have to be consulted if technical or legal details are required. Some commonly used abbreviations are found at the end.

Absorption

The taking in of one or more substances by another, such as soil absorbing rain water or leachate.

Acidic Substance

Anything which has an abundance of hydrogen ions; has a value less than 7.0 on the pH scale; often very corrosive. See *pH Scale, Corrosive Substance.*

Adsorption

The adherence, or attachment, of one or more substances onto the surface of another.

Aerobic Conditions

A situation in which there is an adequate supply of oxygen available (e.g. a compost heap that is mixed, or turned over, regularly)

Alkaline Substance

Anything which has a value greater than 7.0 on the pH scale; often very corrosive. See *pH Scale; Corrosive Substance.*

Anaerobic Conditions

A situation in which there is an inadequate supply of oxygen available (e.g. within the well-compacted waste at a landfill site)

Aqueous Solution

A solution of one or more substances dissolved in water.

Aseptic Condition

Free of disease-causing organisms.

Bacteria

Microscopic organisms, some of which cause disease and some of which cause the decay of plant and animal material.

Baling

The mechanical compression of waste or recyclable materials into rectangular bales. Bales are easier to handle, store and transport than loose waste.

Bioaccumulation

The absorption and storage of a material within an organism which is not able to break the material down for elimination. The persistent materials often reside in the organism's fatty tissues, and the amount accumulates, or builds up, throughout the life of the individual organism.

Biological Magnification

The apparent multiplying of persistent chemicals at every step of a food chain. When any organism eats another, it instantly obtains all the persistent chemicals which have bioaccumulated in the food source.

Biodegradable Material

Items, or chemicals, capable of being broken down, or decomposed, by natural biological processes, usually involving oxygen, moisture and microorganisms such as bacteria. It is a mistake to assume that the processes are quick, produce harmless products and are necessarily good for the environment. Note that biodegradable plastics have been synthesized using starch molecules. It is these starch molecules that the microorganisms digest, leaving the actual plastic molecules behind as 'plastic dust'.

Biodegradation

Breaking down, decomposing, decaying or rotting, by natural biological processes. The processes may take a very long time. If the processes occur in bodies of water, they use up valuable oxygen which is needed by the aquatic organisms and often release nutrients which increase the rate of eutrophication.

Biogas

See *Methane*.

Bleaching

The whitening of something, such as paper or fabric, often using chemicals. When chlorine is used as the bleaching agent, the resulting effluent is toxic.

Blister Package

Packaging which surrounds a product with a transparent plastic bubble mounted onto a cardboard or plastic board. Such packages are said to make the storage and display of the product easier and help reduce shoplifting, but they do not easily lend themselves to recycling.

Blue Box

A blue plastic box used by residents of many municipalities and rural areas to collect and store recyclable items and to carry these items to the curbside /roadside for collection.

Blue Box Materials

The usual materials which are accepted in a community's blue box program (e.g. cans, glass bottles and jars, newspapers). Check your local area because many community programs now also include some types of plastic. It is very important to put only appropriate materials into your blue box. Putting in the wrong items require extra sorting procedures while others render the whole load of materials unsuitable for recycling. The kinds of materials collected in a Blue Box programs are constantly expanding. See *Recyclable Material.*

Bottom Ash

The residue which remains at the bottom of an incinerator after waste is burned. It is often toxic and creates disposal problems. See *Fly Ash; Incinerator.*

Boxboard

Stiff paper packaging, often called cardboard, used for cereal, tissue and detergent boxes; not to be confused with corrugated cardboard. Most boxboard has always been made using a certain amount of used paper, such as newspapers. See *Corrugated Cardboard.*

Carcinogen

A substance or agent (e.g. radioactivity) which causes cancer.

Certificate of Approval (C of A)

A legal document which is required for the operation of any waste management facility under the *Environmental Protection Act.*

Closed-Loop Recycling

Converting used material into material the same as, or similar to, the original (e.g. used newspapers into new newsprint and glass jars into glass bottles). Also known as primary

recycling, this type of recycling is preferable because it is the most energy efficient.

Co-Mingling

The intentional segregation of recyclable materials from general waste but allowing all recycables to be mixed together during collection, requiring further sorting at another location. Co-mingling may save money during collection but the sorting is imperfect and loads of recyclable materials may be contaminated. As a result, the contaminated load of recyclable materials may be unacceptable for a re-processing.

Composite Package

Any package consisting of more than one material; the more materials involved, the more difficult to recycle the package.

Compost

Partially decomposed organic matter which can be added to soil as a source of nutrients and a conditioner. Compost can be produced from kitchen wastes, such as vegetable peelings, and yard waste, such a grass clippings and leaves.

Compostable Material

Anything which is capable of being composted, or biodegraded. All organic materials will biodegrade, but some should be avoided in backyard compost containers. For details, refer to general booklets on this topic or specific instructions which come with commercially available containers.

Conserver Society

A society whose responsible citizens make concerted efforts to reduce consumption of energy and material resources. Conserver citizens also alter their habits in order to reduce the production of waste and other materials which harm the environment.

Consumer Society

A society whose citizens meet their own ever-increasing demands with little regard for the amount of energy or material resources they use up and/or how the environment is degraded

by the disposal of their wastes. High consumer demand became a strategic economic goal in many Western countries after World War II and was artifically stimulated through advertising.

Contaminant

A substance, or form of energy, resulting from human activity, which causes an adverse effect on the natural environment, or impairs human use of the environment. Even a naturally-occurring substance can become a 'contaminant' if a human activity causes it to be in an amount or location where it is not wanted (e.g. phosphates, found in many soaps, are essential plant nutrients but cause harm to aquatic ecosystems when their concentration increases quickly and/or over the normal amount).

Contaminant Pathways

Simple or complex routes followed by contaminants as they move through various ecosystems. Contaminants may undergo various physical and chemical processes, but never really disappear. See also *Bioaccumulation; Biological Magnification; and Ecosystem.*

Corrosive Substance

Anything capable of gradually wearing away other materials through chemical reactions. Very acidic or alkaline substances are corrosive and usually harmful to living tissue. Corrosive substances are considered hazardous under the law and must be disposed of carefully.

Corrugated Cardboard

Stiff paper packaging made of two flat layers on the outside and a ridged layer in the middle. Not to be confused with boxboard. Corrugated cardboard is commonly used to make boxes for many products. Old corrugated cardboard is easily recycled into new corrugated cardboard unless coated with wax, heavy paint or contaminated with food waste. See *Boxboard*.

Cradle-To-Grave Management

An approach to managing wastes, usually industrial and hazardous wastes, from the point of generation (the "cradle") to the final point of treatment and disposal (the "grave"). In Ontario, the cradle-to-grave management of industrial and hazardous wastes is enforced by

means of a waste generator registration process and a manifest system for the transportation of hazardous waste to a certified treatment and disposal facility. See *Polluter Pays*.

Cullet

Glass that has been intentionally crushed prior to being mixed with other raw materials to make new glass products. The crushing may be done by munipalities or by the companies that actually reprocess the glass.

Curbside/Roadside Recycling

A recycling program in which people separate recyclable materials from general waste and place them at the curbside/roadside for collection.

Decomposition

See *Biodegradation*.

Decomposers

Microscopic organisms (e.g. bacteria and fungi) or small animals (e.g. worms and insect larvae) which digest or eat organic materials and produce a nutrient-rich material suitable for compost. See *Ecosystem*.

De-Inking

A chemical process which removes ink from recyclable paper. Often harmful wastes are produced. Recycling paper materials does not always include de-inking.

Disposable Product

Something designed to be thrown away after one, or just a few, uses.

Domestic Waste

See *Residential Waste*.

Drink(ing) Boxes

Aseptic containers designed for convenient transportation and long-term storage of liquids such as fruit juices. They are an example of a composite package, consisting of paper, plastic and metal foil and are not suitable for closed-loop recycling. Some plastic recycling processors will accept a certain limited percentage of these containers with other mixed plastics.

Dump (Site) (noun)

Location where garbage is "dumped"; usually a site not approved to take garbage in the first place. Not to be confused with an approved and properly managed landfill site.

Dump (verb)

To discard waste materials. Often used to describe the careless disposal of garbage.

Ecosystem

Any given area of the earth where living organisms (the "biotic components") interact with nonliving things (the "abiotic components") in a cyclic exchange of matter and energy (e.g. oxygen, nitrogen, water, carbon dioxide, etc). The basic unit of ecology. Ecosystems range in size from very small to very large. Examples include a pond, forest, lake, desert; etc. An ecosystem consists of four types of organisms: plants, herbivores, carnivores, omnivores, and decomposers. Depending on how an ecosystem is defined, many organisms can be part of more than one ecoystem. Nutrient cycles and contaminant pathways may also involve more than one ecosystem.

Effluent

Liquid waste, often from industrial processes. In many cases, effluent contains harmful contaminants which must be removed by a treatment process before it can be released into the environment.

Emissions

Waste, often from industrial processes, in the form of gases or fine particulates released into the atmosphere. In many cases, air emissions into the environment contain harmful contaminants which must be removed to acceptable concentration levels.

Energy From Waste (EFW)

The concept of burning waste in an incinerator and using the released energy to make steam or to generate electricity which could be used in a variety of ways (e.g. to heat buildings). See *Incinerator*.

Environmental Choice

A label allowed by the federal government on particular items or brands which meet specific criteria; indicates that these items or brands are considered less harmful for the environment than others.

Environmental Assessment (EA)

A detailed environmental study of a proposed project. The study includes an assessment of the need for the project, various alternatives to the project, potential social and environmental impacts, methods to reduce the potential for any negative effects, methods to remediate any problems which do occur, and monitoring techniques and frequency.

Environmentally Friendly

A term which many people think means 'good for the environment'. Since the manufacture, use and disposal of most products are not good for the environment, this term is misleading and often used as a marketing tool. If this label is used honestly, it may mean that the product or package causes less harm than others based on current information.

Environmentally Responsible

A term used to describe activities carried out, or choices made, when the people making the decisions have taken into account the potential impact of those activities, or choices, on the environment. Note that it is not the products, but the decisions, which are environmentally responsible (e.g. the choices to buy bulk food items and to carry reusable shopping bags back to the stores).

Eutrophication

The gradual natural aging of a body of water. Eutrophication involves a series of related physical, chemical and biological changes in the aquatic ecosystem. It becomes a problem when its rate is increased because of human activity (e.g. addition of excess nutrients from

fertilizer run-off, feedlot operations and inadequate sewage treatment).

Fertilizer

Material, natural or synthetic, used to add nutrients to soil. Most chemical fertilizers contain a mixture of nitrogen, phosphorus, and potassium.

Fine Paper

Good quality paper such as that used for photocopiers, computers, legal documents and writing; has long cellulose fibres. Can easily be recycled.

Fly Ash

Non-combustible particulates which are often emitted by incinerators but which can be removed by various pollution control devices. When removed, there is still a disposal problem. See *Bottom Ash; Incinerator*.

Garbage

A used material people no longer want and for which they can find no further uses. Also called: rubbish, refuse, residual (waste), and trash. Whatever its called, garbage is something we classify as such by putting in a container for collection and disposal. Unfortunately, much of what we call garbage often contains many items which are reusable or recyclable. See *Municipal Solid Waste*.

Garbage Compactor

Special equipment for reducing the volume of garbage using pressure. Large models are used by communities to reduce the volume of garbage before burying it in a landfill. Small models used in homes may make people feel there is no need to recycle or choose items with less packaging.

Garbage-Free Lunches

Lunches using reusable containers and utensils. Leftover food from a lunch goes into a composter. As a result, nothing becomes classified as "garbage."

Garburetor

Small electrical apparatus, usually attached to the kitchen sink, for grinding organic wastes before flushing them down the drain. Garburetors waste electricity and water and may put a strain on the community's sewage treament plant or family's septic system. Organic wastes should be composted instead.

Groundwater

Water which exists in underground passageways in rocks and which flows in response to gravity; often the source of water for communities. See *Surface Water*.

Hazardous Materials

Things which are potentially harmful to living organisms because they are corrosive, inflammable, reactive or toxic. These items are not usually included with municipal solid waste.

Heavy Metals

A group of metals including aluminum, zinc, chromium, nickel, copper, tin, silver, antimony, cadmium, arsenic, lead, mercury, iron and cobalt. These materials tend to bioaccumulate and also follow contaminant pathways through an ecosystem's food web. Heavy metals are often present in the bottom ash of incinerators and the leachate from landfill sites.

Humus

Nutrient-rich material resulting from the natural decay of organic material in the soil; similar to compost.

Ignitable Substance

Anything which is easily set on fire. Such materials are considered hazardous and must be disposed of carefully. Same as flammable and inflammable; opposite of non-inflammable.

Incinerator

Facility for the burning of material, often garbage. Reduction in the volume of the material varies with the material being burned. Incinerators produce a residue, or bottom ash, which presents a disposal problem, and various gases and particulates, or fly ash, which should not be released into the atmosphere. See *Energy from Waste*.

Inorganic Material

Material which is not derived from plants or animals; i.e. does not contain carbon.

Impermeable Material

Substance which is able to prevent the passage, or movement, of materials through it. Impermeable is a relative term. Nothing is completely impermeable forever. Clay is used to line landfill sites because it is considered impermeable to leachate. See *Permeable; Semi-Permeable*.

Industrial, Commercial and Institutional (IC&I) Waste

Solid waste generated by industries and businesses of all types, including shopping stores, restaurants, and offices; and institutional types of establishments, such as schools, hospitals, government offices, and universities. IC&I waste makes up about 60 per cent of Ontario's total municipal solid waste stream. See *Municipal Solid Waste; Residential Waste*;

Landfill Site

An area of land used for the burial of wastes under controlled conditions. Often called a "sanitary landfill site." Landfilling involves the compaction of waste in sections, called "cells." The cells of waste are covered with soil at regular intervals. A properly designed landfill site includes plans for, site preparation, leachate and biogas control, final capping, site rehabilitation, final use, and perpetual monitoring.

Leachate

The liquid which results when rain or melting snow percolates through a material and carries with it dissolved materials picked up as it moves. Depending on the location, leachate may contain hazardous materials which could contaminate groundwater or surface water. Leachate has more heavy metals if the rain or snow is acidic.

Life Cycle Analysis

A way of determining the total amount resource and energy used and waste generated by a particular product at all stages of its development: from the resources extracted to make it, through to its manufacture in a factory, its sale in a store, its use by a consumer, the materials extracted from it to make new products, and its final disposal. Lifecycle analysis is still a relatively new science. It helps to compare the relative environmental impact of two or more types of products and packaging.

Litter

Large or small quantities of unwanted waste carelessly left lying around. Anti-litter campaigns do make our streets and parks look better but do not contribute to an actual reduction of solid waste going to disposal.

Low-Grade Paper

Paper which contains short cellulose fibres, has been chemically treated or had a special coating applied (e.g. newsprint, fax paper, boxboard and magazines); often of less value for recycling. See *Fine Paper*.

Material Recovery Facility (MRF)

A facility where specified materials are intentionally removed from mixed waste or where co-mingled recyclables are sorted into distinct categories.

Methane

A naturally-occurring gas produced when organic material biodegrades without the presence of sufficient oxygen. It is often mixed with other gases. Because methane is smelly, flammable and can migrate through soil, it can cause problems at landfill sites or in the surrounding area. It can be collected and used for the generation of heat and elecricity.

Microorganisms

Living things which can only be seen with the aid of a microscope or magnifying glass (e.g. bacteria).

Mitigation

Techniques for preventing, avoiding or reducing the impact of an environmental problem, such as water pollution caused by the movement of leachate from a landfill site. See *Remediation*

Mobius Loop

Originally a mathematical symbol. A modified Mobius loop has been adopted as a symbol for recycling because it conveys the infinite use and reuse of materials. Its three arrows represent the three states of matter which can be recycled: solids, liquids and gases. The symbol is used by government agencies, oganizations and businesses. By convention, two types of Mobius loop symbols are often used to mean either something is "recyclable" or that it "contains recycled materials."

This symbol means that a product or packaging is potentially recyclable. However, use of this symbol may be misleading. A used material is recyclable if it is accepted by a community's recycling program. If it is not, then it is not really recyclable in that particular community.

This symbol means that a product or packaging contains recycled materials. This symbol has also been much abused. Properly used, the symbol should be accompanied by information indicating the percentage of recycled content and whether it is pre-consumer waste or post-consumer waste that has been recycled. See also *Recyclable Material; Post-Commercial Waste; and Post-Consumer Waste*.

Monitoring

The detection by various means of any existing or potential environmental problems created by a waste site, usually over a long period of time. In landfills, for example, perpetual monitoring is necessary to be sure that the gas collection system is functioning properly and the liner is not leaking.

Municipal Solid Waste (MSW)

More commonly referred to as garbage, this waste material is handled by municipal collection and/or disposal services. It includes two main types of solid waste: residential, or domestic, waste and industrial, commercial and institutional waste. Municipal solid waste does not include hazardous and liquio industrial wastes. Also known as garbage, refuse, rubbish and trash. Different municipalities make legal distinctions among these terms, but they are all forms of municipal solid waste. See *Industrial, Commercial and Institutation Waste; Residential Waste.*

Mutagen

A substance or agent (e.g. radioactivity) which causes genetic mutations.

Mutation

An inheritable alteration of the genes or chromosomes of an organism; may, or may not, cause adverse effects.

Non-Renewable Resources

Materials that cannot be replaced by nature once they have been used (e.g. coal, oil and natural gas). Metals are also non-renewable, but these can be recycled.

Not-In-My-Backyard (NIMBY)

A label often given to people who oppose the siting of waste disposal facility in their local communities. The concept of NIMBY has been much abused to include people with legitimate concerns about the environmental impact of a waste disposal facility.

Organic Material

Substances originating from living things and containing carbon (e.g. potatoes, meat, oil and plastic).

Orphan Site

Waste site which has been abandoned by its owners, and who cannot be found, or who refuse

to pay for their cleanup. Usually the cost of cleaning up an orphan site is assumed by government. See *Polluter Pays*.

Over-Packaging

Unnecessary extra layers of packaging. See *Packaging*.

pH Scale

Used to measure of the acidity or alkalinity of a material. The scale ranges from 0 (very acidic) to 14 (very alkaline). Each unit on the scale represents a factor of 10 because the scale is logarithmic (i.e. pH=4 is 10 times more acidic than pH=5 and pH=3 is 100 times more acidic than pH=5). Something with a pH=7 is neutral (neither acidic nor alkaline). For example, lemon juice is acidic, while baking soda is alkaline.

Packaging

The wrapping, container or packing material used to enclose a product. For every product, there is a list of reasons why packaging is considered to be required, ranging from protecting breakable items to providing an advertising vehicle. In some cases, there are legal packaging requirements (e.g. for making the item tamper-proof or providing ingredient lists or instructions in both official languages). Some reasons for packaging are considered more valid than others. Each situation should be judged individually. Although safety is a critical factor, the effects on the environment of both production and disposal of the package must also be considered.

Particulates

Finely divided solid or liquid particles, often included in emissions from industrial stacks.

Pathogen

Organism capable of causing a disease.

Percolation

The slow movement of a gas or liquid through a porous material, such as methane or rain through soil.

Permeable Material

A porous substance which allows the passage, or movement, of materials through it (e.g. sandy soil)

Photodegradable Material

Material which is capable of being broken down in the presence of ultraviolet (UV) radiation from the sun or artificial sources. Most plastics are photodegradable and require the addition of UV inhibitors if they are to be used outdoors (e.g. road signs).

Planned Obsolescence

The practice of designing products to wear out, break or become unfashionable so that replacement items or parts have to be purchased.

Plastics

A very large number of different, synthetic, organic compounds, usually made from products of the oil/petroleum industry. Different plastics have a great variety of properties and, thus, have many kinds of applications. Because there are so many kinds of plastics, it is often difficult to include them in community recycling programs.

Pollutant

See *Contaminant*.

Pollution

The release of contaminants into the environment. Pollution abatement is the removal of contaminants from emissions or effluent before they are released into the environment. Even better than pollution abatement is pollution prevention which involves changing industrial processes/activities to ensure that they do not create contaminants in the first place.

Polluter Pays

When applied to waste management: The idea that the person or persons responsible for generating wastes are responsible for bearing the costs of their management; and equally,

they are responsible for bearing the cost of cleaning up the environment. See *Cradel-to-Grave Management; Orphan Sites; Product Stewardship; True-Cost Accounting; Waste Generator.*

Polychlorinaed Biphenyls (PCBs)

A group of very stable organic compounds. PCBs had a variety of uses, mostly as electrical insulating fluids, until the mid-1970s, when they were banned for use in Canada. PCBs have been found in human tissues, rainwater, and many species of birds and fish. They have a tendency to collect in fatty tissue, degrade gradually, and to accumulate in the food chain (bioaccumulation). PCBs have been associated with various reproductive disorders in birds. In Ontario, anything containing PCBs is considered to be a hazardous material.

Polycyclic Aromatic Hydrocarbons (PAHs)

A group of compounds containing two or more aromatic (benzene) rings. A number of PAH compounds are known to be carcinogenic.

Polyethylene Terephthalate (PET)

A lightweight, strong, transparent plastic; used to make large carbonated, soft drink bottles.

Polystyrene (PS)

A plastic used to make clothes hangers, rulers and various containers. Polystyrene can be foamed to make drinking cups, plates, fast food containers and pellets or moulded for packing breakable materials. Originally made using CFCs and HCFCs, foamed polystyrene is now made using pentane, carbon dioxide or other gases as the foaming agent. *Styrofoam* is the commonly-used brand name of a blue-coloured foamed polystyrene rigid insulation.

Post-Commercial Waste

Materials remaining at the end of any manufacturing process which are returned to that process to make more products (e.g. trimmings and cuttings at a pulp and paper mill).

Post-Consumer Waste

Materials previously used by consumers at various locations, such as homes, offices, stores

and institutions, and collected for recycling (e.g. cardboard boxes, photocopies, old notebooks, glass bottles, cans).

Potable Water

Water which is suitable for drinking by humans and for cooking. Sources include groundwater aquifers and lakes and rivers. Potable water supplies can be contaminated by wastes improperly managed or from leachate leaking from landfill sites. See *Leachate*.

Pre-Consumer Waste

See *Post-Commercial Waste*.

Primary Recycling

See *Closed-Loop Recycling*.

Product Stewardship

An approach to waste management which recognizes the responsibility of a product or packaging manufacturer to control/monitor the manufacture, shipment, storage, use and final disposal of any product. See *Polluter Pays*.

Pulp

Soft, moist material resulting when wood is processed to make paper; consists mainly of cellulose fibres

3Rs of Waste Management

Reduce, reuse and recycle - in that order - before disposal! A major goal of municipal waste management is to keep materials out of the waste disposal stream. The 3Rs form a hierarchy of actions to achieve that goal:

- First, encourage people to reduce at source the amount of products or packaging purchased, consumed or used;

- Second, encourage people to buy reusable products or packaging and to reuse the

products or packaging as often and as much as possible; and then,

- Third, encourage people to participate in recycling programs.

The remaining material after the 3Rs are considered "residual waste." Note that it is wasteful to recycle a refillable and re-usable container.

Reclaim

To recover, or regain possession of, something in order to use it again.

Recyclable Material

A material which can be recycled. Not to be confused with 'reusable'. Technically, most materials can be recycled; however there are not necessarily programs set up to separate, collect and process all recyclable materials. The term 'recyclable' is relatively meaningless unless a program exists to collect, reprocess and market the end-product. See *Mobius Loop*.

Recycling

Physically, chemically or biologically reprocessing something in order to use the material to make a new product. A recycling program involves much more than just the actual reprocessing. It involves also the continuous separation, collection and/or cleaning of the recyclable materials and the maintenance of stable markets for the recyclable materials and useful final end-products. See *Closed-Loop Recycling and Secondary Recycling*.

Recycled Content

The percentage of the product or package which is made of recycled materials. See Mobius Loop; Post-Commercial waste; and Post-Consumer Waste.

Recycling Depot

A facility for the temporary storage of recyclable materials. In some areas, depots are used as drop-off locations by the public. In other areas, they are used by municipalities to store materials collected by trucks.

Recycling Plant

Facility to which recyclable materials are taken to be reprocessed.

Reduction

The decrease in the quanity of waste produced through modified consumer practices and industrial production changes to generate fewer useless by-products. See *3Rs of Waste Management*.

Refillable Container

A container which can be cleaned and filled several times after being used with the same or similar product (e.g. carbonated soft drink and Ontario beer bottles). Usually the refilling is done by the companies making the products.

Refuse-Derived Fuel (RDF)

Fuel made from processed garbage; often pelletized.

Refuse-Fired Steam Plant

Facility which generates steam using the energy released by the incineration of garbage.

Reject

To refuse to buy or accept a product or type of packaging because it is wasteful. Often referred to as an activity within reduction - the first "R" of the 3Rs of waste management.

Remediation

Taking corrective measures at a site causing environmental problems.

Renewable Resources

Resources which can be replenished by nature after being extracted or used by humans. Trees are often called a renewable resource; so is water, fish and wild game. In reality,

however, these resources are renewable only to the extent that the rate of their extraction or use is less than the rate at which they are replenished by nature. Sometimes used in the same context as "renewable energy." See *Non-Renewable Resources*.

Repair

To mend, or put into good condition, something which can then be reused instead of being thrown away. Often referred to as an activity within reuse - the second "R" of the 3Rs of waste management.

Residential Waste

Waste produced by all types of households, including detached dwellings, row housing, condominiums and apartments. In Ontario, residential waste makes up about 40 per cent of the total municipal solid waste stream. See *Municipal Solid Waste*.

Residual Waste

The materials remaining after all efforts have been made to reduce, reuse and recycle. Usually, these materials have to be put in approved landfill sites. Only residual waste is properly refered to as "garbage." See *Garbage*.

Returnable Container

Container which can be taken back to a specific location, often a store. In return, a person receives a refund of a deposit paid when product was originally purchased. Returnable containers are sometimes refilled (e.g. carbonated soft drink bottles); others are recycled (e.g. beer cans).

Reusable Product

Something which can be used again for the same, similar or different purpose. Reusing some items for craft purposes can give the items a second life prior to being discarded; provided that the items are not a refillable container/returnable containers or if recyclable, that they are not used in ways which prevents them from being collected by in a recyoling program.

Reuse

To use something again in its original form for the same or different purpose. See *3Rs of Waste Management.*

Risk Assessment

When applied to waste management: a way of measuring the significance of a waste problem for its impact on the environment or human health. Risk assessment is a relatively new and controversial field of study. There is often disagreement on how the environmental or health risk of a waste or waste disposal facility is to be measured.

Secondary Recycling

Recycling which makes entirely different products out of the reprocessed materials (e.g. making egg cartons from used newspapers; making a filler for asphalt from glass bottles; making a wood substitute from mixed plastics). These process are not as efficient as primary recycling but are definitely better than landfilling the materials.

Semi-Permeable Material

Substance which allows the passage, or movement, of some selected materials through it. See also Permeable and Impermeable.

Shredding

Using various machines to reduce the size of waste materials in order to facilitate their reprocessing and /or disposal.

Shrink-Wrap Packaging

Packaging that uses a thin layer of plastic, shrunk to the exact size and shape of the product; sometimes used to attach the product to a paper or plastic board. It is similar to, but tighter than, blister packaging. Such packaging does not easily lend itself to recycling.

Soil Conditioner

Material useful when added to soils because of its nutrient content and/or its water-draining

or water-holding properties. See *Compost*.

Solid Waste

See *Municipal Solid Waste*.

Source Separation

The purposeful segregation of used materials from municipal waste into specific material categories at the point of generation, or where the waste is created. The generator may separate recyclables from other waste, but further sorting is required. Some municipalities further sort recylables into separate compartments in the collecting trucks; others co-mingle the recyclables for sorting at another location. Curbside sorting is much more efficient, and the materials are much more marketable because they have less contaminants.

Styrofoam

Trademark name for a specific type of foamed foamed polystyrene used as rigid building insulation. There is no such thing as a "styrofoam" cup. See *Polystyrene*.

Surface Water

Water that is found on the surface of the earth in lakes, ponds, rivers, streams, etc. See *Groundwater*.

Synergistic Effect

The result when two or more substances cause an effect that is greater than the sum of the effects of the individual substances.

Teratogen

A substance, or agent (e.g. radioactivity), that causes birth defects.

Thermal Pollution

The release of heat-bearing wastes into the environment (e.g. water that is used for cooling

by various industries becomes warm and is released into local surface water).

Throwaway Society

See Consumer Society.

Tipping Fee

The amount of money charged by the operator of an approved waste disposal facility for receiving and managing waste. The charge is based on either the weight or volume of the waste. Often a tipping fee is higher than the actual operating costs of the facility, so that the extra funds can be used by a municipality for its 3Rs programs.

True-Cost Accounting

Recording all the costs - including the environmental and social costs - of managing the waste generated from the use of a particular product or packaging. Also known as "full-cost accounting," the sum total of all costs is usually what we as a society have to pay for the management of waste. Unfortunately, these costs are often not evident in the price of a product or a service. *See Polluter Pays.*

Toxic Substances

Materials, solid, liquid or gaseous, which are harmful, or poisonous. They are sometimes called 'toxics'; not to be confused with 'toxins'.

Toxins

Harmful, or poisonous, substances created in, or by, living organisms, such as bacteria' They form a sub-group of 'toxic substances'.

Transfer Station

Facility used to receive and temporarily store waste and/or recyclable materials until they are shipped to another site for reprocessing or disposal.

Vermicomposting

Composting using worms to digest the organic materials provided; can be done indoors. For details, refer to specific instructions/suggestions.

Waste

Solid, liquid or gaseous materials left over after various processes in homes, schools, businesses, institutions and industries. Unwanted materials, previously thought to be useless, often are carelessly released into the environment. Many of the materials can be reused, recycled or not produced in the first place.

Waste-Derived Fuel

See *Refuse-Derived Fuel*

Waste Disposal

Placing waste for long-term storage in a landfill site or in an incinerator for partial destruction. Waste disposal facilities must be certified for use. Their purpose is to keep the waste from entering into the environment.

Waste Diversion

Using the 3Rs of waste management as part of a strategy to keep used materials from going to disposal. See *3Rs of Waste Management*.

Waste Generator

The person, business, institution or industry which has created waste materials.

Waste Management

The management of waste and used materials through the 3Rs and disposal. Proper waste management puts first emphasis on waste reduction, reuse and recycling, before disposal methods are used. See *3Rs of Waste Management; Waste Disposal*.

Waste Management Master Plan

A long-term plan for the design and implementation of a waste management system to service the waste needs of a particular area.

Waste Management System

All the facilities, buildings and equipment used for the collection, treatment and disposal of wastes, and for the reduction of used materials going to disposal. A complete waste management system consists of disposal and diversion components. A waste management system is defined for a particular "service area," which is the population living in one or more municipalities.

Wastewater

See *Effluent*.

Wet/Dry Recycling

A program which involves the collection of both the regular dry recyclables, such as cans and bottles, and wet compostables, such as kitchen wastes.

SOME COMMONLY USED ABBREVIATIONS

C of A	Certificate of Approval
EFW	Energy From Waste
EA	Environmental Assessment
EAA	*Environmental Assessment Act*
EPA	*Environmental Protection Act*
HHW	Household hazardous waste
IC&I	Industrial, Commercial and Institutional

MRF	Material Recovery Facility
MSW	Municipal Solid Waste
NIMBY	"Not In My Backyard"
OCC	Old Corrugated Cardboard
ONP	Old Newsprint
PAHs	Polycyclic Aromatic Hydrocarbons
PCBs	Polychlorinated biphenyls
PET	Polyethylene terphathalate
PS	Polystyrene
3Rs	Reduce, Reuse, Recycle
RDF	Refuse-Derived Fuel

For more information on waste issues contact:

Environment Ontario
Public Information Centre
135 St. Clair Avenue West
Toronto, Ontario M4V 1P5

Telephone: (416) 323-4321
1-800-565-4923

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